

NIDCD Fact Sheet | **Hearing and Balance****Hearing Loss and Older Adults****What is hearing loss?**

Hearing loss is a sudden or gradual decrease in how well you can hear. It is one of the most common conditions affecting older and elderly adults. Approximately one in three people between the ages of 65 and 74 has hearing loss, and nearly half of those older than 75 have difficulty hearing. Having trouble hearing can make it hard to understand and follow a doctor's advice, to respond to warnings, and to hear doorbells and alarms. It can also make it hard to enjoy talking with friends and family. All of this can be frustrating, embarrassing, and even dangerous.

Do I have a hearing problem?

Ask yourself the following questions. If you answer "yes" to three or more of these questions, you could have a hearing problem and may need to have your hearing checked by a doctor.

YES NO

- Do I have a problem hearing on the telephone or cell phone?
- Do I have trouble hearing when there is noise in the background?
- Is it hard for me to follow a conversation when two or more people talk at the same time?
- Do I have to strain to understand a conversation?
- Do many people I talk to seem to mumble (or not speak clearly)?

YES NO

- Do I misunderstand what others are saying and respond inappropriately?
- Do I often ask people to repeat themselves?
- Do people complain that I turn the TV volume up too high?

What should I do if I have trouble hearing?

Hearing problems can be serious. The most important thing you can do if you think you have a hearing problem is to seek professional advice. There are several ways to do this. You can start with your primary care physician, an otolaryngologist, an audiologist, or a hearing aid specialist. Each has a different type of training and expertise. Each can be an important part of your hearing health care.

An otolaryngologist (oh-toe-lair-in-GAH-luh-jist) is a doctor who specializes in diagnosing and treating diseases of the ear, nose, and throat. An otolaryngologist will try to find out why you're having trouble hearing and offer treatment options. He or she may also refer you to another hearing professional, an audiologist (aw-dee-AH-luh-jist). An audiologist has specialized training in identifying and measuring the type and degree of hearing loss and recommending treatment options. Audiologists also may be licensed to fit hearing aids. Another source of hearing aids is a hearing aid specialist, who is licensed by a state to conduct and evaluate basic hearing tests,

offer counseling, and fit and test hearing aids. You must be examined by a physician before you can be fitted for a hearing aid, although federal law allows you to sign a waiver if you do not wish to be examined before you purchase an aid.

Why am I losing my hearing?

Hearing loss happens for different reasons. Many people lose their hearing slowly as they age. This condition is known as presbycusis (prez-buh-KYOO-sis). Doctors do not know why presbycusis affects some people more than others, but it seems to run in families. Another reason for hearing loss with aging may be years of exposure to loud noise. This condition is known as noise-induced hearing loss. Many construction workers, farmers, musicians, airport workers, yard and tree care workers, and people in the armed forces have hearing problems even in their younger and middle years because of too much exposure to loud noise. (Read the NIDCD fact sheets titled “Presbycusis” at <http://www.nidcd.nih.gov/health/hearing/Pages/presbycusis.aspx> and “Noise-Induced Hearing Loss” at <http://www.nidcd.nih.gov/health/hearing/pages/noise.aspx> for more information.)

Hearing loss can also be caused by viral or bacterial infections, heart conditions or stroke, head injuries, tumors, and certain medicines.

What treatments and devices can help?

Your treatment will depend on your hearing loss, so some treatments will work better for you than others. There are a number of devices and aids that can improve hearing loss. Here are the most common ones:

- ▶ **Hearing aids** are electronic instruments you wear in or behind your ear. They make sounds louder. Things sound different when you wear a hearing aid, but an audiologist or hearing aid specialist can help you get used to it. To find the hearing aid that works best for you, you may have to try more than one. Ask your audiologist or hearing specialist whether you can have a trial period with a few different hearing aids. Both of you can work together until you are comfortable. (Read the NIDCD fact sheet “Hearing Aids” at <http://www.nidcd.nih.gov/health/hearing/pages/hearingaid.aspx> for more information.)
- ▶ **Cochlear** (COKE-lee-ur) **implants** are small electronic devices surgically implanted in the inner ear that help provide a sense of sound to people who are profoundly

deaf or hard-of-hearing. If your hearing loss is severe, your doctor may recommend a cochlear implant in one ear or both. (Read the NIDCD fact sheet “Cochlear Implants” at <http://www.nidcd.nih.gov/health/hearing/pages/coch.aspx> for more information.)

- ▶ **Assistive listening devices** include telephone and cell phone amplifying devices, smartphone or tablet “apps,” and closed circuit systems (induction coil loops) in places of worship, theaters, and auditoriums. (Read the NIDCD publication “Assistive Devices for People with Hearing, Voice, Speech, or Language Disorders” at <http://www.nidcd.nih.gov/health/hearing/Pages/Assistive-Devices.aspx> for more information.)
- ▶ **Lip reading** or **speech reading** is another option that helps people with hearing problems follow conversational speech. People who use this method pay close attention to others when they talk, by watching how the speaker’s mouth and body move.

Can my friends and family help me?

Yes. You and your family can work together to make hearing easier. Here are some things you can do:

- ▶ Tell your friends and family about your hearing loss. They need to know that hearing is hard for you. The more you tell the people you spend time with, the more they can help you.
- ▶ Ask your friends and family to face you when they talk so that you can see their faces. If you watch their faces move and see their expressions, it may help you to understand them better.
- ▶ Ask people to speak louder, but not shout. Tell them they do not have to talk slowly, just more clearly.
- ▶ Turn off the TV or the radio if you aren’t actively listening to it.
- ▶ Be aware of noise around you that can make hearing more difficult. When you go to a restaurant, do not sit near the kitchen or near a band playing music. Background noise makes it hard to hear people talk.

Working together to hear better may be tough on everyone for a while. It will take time for you to get used to watching people as they talk and for people to get used to speaking louder and more clearly. Be patient and continue to work together. Hearing better is worth the effort.

Styles of hearing aids



Credit: NIH Medical Arts

Are there different styles of hearing aids?

There are three basic styles of hearing aids. The styles differ by size, their placement on or inside the ear, and the degree to which they amplify sound.

► **Behind-the-ear (BTE)** hearing aids consist of a hard plastic case worn behind the ear and connected to a plastic earmold that fits inside the outer ear. The electronic parts are held in the case behind the ear. Sound travels from the hearing aid through the earmold and into the ear. BTE aids are used by people of all ages for mild to profound hearing loss.

A new kind of BTE aid is an open-fit hearing aid. Small, open-fit aids fit behind the ear completely, with only a narrow tube inserted into the ear canal, enabling the canal to remain open. For this reason, open-fit hearing aids may be a good choice for people who experience a buildup of earwax, since this type of aid is less likely to be damaged by such substances. In addition, some people may prefer the open-fit hearing aid because their perception of their voice does not sound "plugged up."

► **In-the-ear (ITE)** hearing aids fit completely inside the outer ear and are used for mild to severe hearing loss. The case holding the electronic components is made of hard plastic. Some ITE aids may have certain added

features installed, such as a telecoil. A telecoil is a small magnetic coil that allows users to receive sound through the circuitry of the hearing aid, rather than through its microphone. This makes it easier to hear conversations over the telephone. A telecoil also helps people hear in public facilities that have installed special sound systems, called induction loop systems. Induction loop systems can be found in many churches, schools, airports, and auditoriums. ITE aids usually are not worn by young children because the casings need to be replaced often as the ear grows.

► **Canal** aids fit into the ear canal and are available in two styles. The in-the-canal (ITC) hearing aid is made to fit the size and shape of a person's ear canal. A completely-in-canal (CIC) hearing aid is nearly hidden in the ear canal. Both types are used for mild to moderately severe hearing loss.

Because they are small, canal aids may be difficult for a person to adjust and remove. In addition, canal aids have less space available for batteries and additional devices, such as a telecoil. They usually are not recommended for young children or for people with severe to profound hearing loss because their reduced size limits their power and volume.

Are new types of aids available?

Although they work differently than the hearing aids described above, implantable hearing aids are designed to help increase the transmission of sound vibrations entering the inner ear. A middle ear implant (MEI) is a small device attached to one of the bones of the middle ear. Rather than amplifying the sound traveling to the eardrum, an MEI moves these bones directly. Both techniques have the net result of strengthening sound vibrations entering the inner ear so that they can be detected by individuals with sensorineural hearing loss.

A bone-anchored hearing aid (BAHA) is a small device that attaches to the bone behind the ear. The device transmits sound vibrations directly to the inner ear through the skull, bypassing the middle ear. BAHAs are generally used by individuals with middle ear problems or deafness in one ear. Because surgery is required to implant either of these devices, many hearing specialists feel that the benefits may not outweigh the risks.



Where can I find additional information about hearing loss and older adults?

The NIDCD maintains a directory of organizations that provide information on the normal and disordered processes of hearing, balance, taste, smell, voice, speech, and language. Visit the NIDCD website at <http://www.nidcd.nih.gov> to search the directory.

Use the following keywords to help you find organizations that can answer questions and provide printed or electronic information on hearing loss and older adults:

- ▶ Late-deafened adults
- ▶ Hearing aids
- ▶ Presbycusis

More NIDCD fact sheets on Hearing and Balance:

- ▶ Assistive Devices for People with Hearing, Voice, Speech, or Language Disorders
- ▶ Cochlear Implants
- ▶ Hearing Aids
- ▶ Noise-Induced Hearing Loss
- ▶ Presbycusis

Visit the NIDCD website at <http://www.nidcd.nih.gov> to read, print, or download fact sheets.

For more information, additional addresses and phone numbers, or a printed list of organizations, contact us at:

The NIDCD Information Clearinghouse

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